

### REMARKS/ARGUMENTS

The Examiner noted under 35 U.S.C. §112, §1, that claim 20, as amended, is not supported by the specification. Upon review, it appears that claim 20 is not readable on the elected Species 4 and Species D. Claim 20 should be withdrawn from consideration.

Claims 13, 17-19 and 27-28 were rejected under 35 U.S.C. §112, §2. The Applicants accept the Examiner's suggestion that the word "tube" should be amended to - - first tube - - in claims 13, 27 and 28.

The independent claims are claims 1 and 29. Claims 1, 2, 13 and 27-29 have been rejected as anticipated by Felix ('098).

Claims 1, 3, 13, 20, 21, 23, 25 and 27-29 were rejected over the combination of Sharp et al. ('974), Ito et al. (JP '441) and Maita et al. ('941).

Claim 29 was rejected over Sierrro et al. ('709) in view of Malmin ('880).

Claims 2, 10-12, 17-19, 24 and 26 have been rejected over the Sharp, Ito and Maita references, in view of tertiary references.

Claims 1 and 29 have each been amended to include a feature of original claim 24, now canceled, namely that the front partial length nozzle tube for the air-powder mixture has an oval or elliptical cross-section, of a size for being inserted into a gum pocket. See page 8, first paragraph, lines 20-22. With this shape, the tube, when inserted into gum pockets for treating the same, will cause less widening of the gum pockets.

Against the feature of claim 24, the Examiner cited Heil. The Examiner's justification for citing the Heil reference was that "Heil teaches the nozzle piece having an oval cross section," as if "the nozzle piece" in Heil was relevant to the nozzle recited in claims 1 and 29. In fact, Heil has nozzles for spraying water and air through open space over a wide field, toward the rotating bit of a dental drill. Any shape disclosed in Heil has no relevance to a shape of the tube of claims 1 and 29, in combination with the other claimed elements, shaped and sized for being inserted and discharging an air/powder mixture into a gum pocket inside a human gum.

In addition to citing the irrelevant oval shape of the nozzle in Heil, the Examiner also asserted that "it has been held that the configuration of the claimed opening was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive

evidence that the particular configuration of the claimed opening was significant.” (*In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) MPEP 2144.04 IV B).

The Examiner is requested to review the rest of MPEP 2144.04, namely the first paragraph. The facts in In re Dailey have nothing to do with those in the present application. Dailey involved a disposable plastic nursing container. The present case involves a dental handpiece for treating gum pockets. The Office Action does not explain why the Court’s opinion in Dailey has any relevance to what would have been obvious or “a matter of choice” in the present case.

The grounds for rejection of claim 24, now included in claims 1 and 29, over Heil and the other art are accordingly traversed. Claims 1 and 29 and their dependent claims are therefore requested to be allowed.

The Examiner also found a lack of novelty of the independent claims in view of Felix. However, this document does not disclose a nozzle piece of a dental powder jet apparatus, since the nozzle of Felix carries a liquid, not a powder or air. Consequently, the feature of claims 1 and 29 concerning a discharge nozzle for discharging a mixture of air and dental powder is not disclosed in this document, but solely a discharge nozzle for a fluid. As the suction tube (38) of Felix is not adapted to discharge or irrigate such a medium, only one tube (irrigation tube 40) is provided as a discharge element. The remaining discharge nozzle for the air-powder-mixture would not be disclosed in this document. Consequently, even if the Examiner considers the tube (40) as the tube for the air-powder-mixture with plural nozzle openings in the outer peripheral surface, there still would be no discharge nozzle for fluid, and in particular no such nozzle being axially displaced backwards.

Further, concerning the amended claims 1 and 29, Felix does not disclose that the front partial length of the nozzle piece has an oval or elliptical cross section, but rather is formed circular.

The Examiner also rejected the independent claims on a lack of inventive step in view of a combination of Sharp et al., Ito et al. and Maita et al. Regarding Sharp et al., the Examiner has acknowledged that this document does not teach that the first tube is provided with plural nozzle openings, at least in the outer peripheral surface, and that a mouth of the discharge nozzle for the fluid is axially displaced backwards with respect to the discharge nozzle for the air-powder-

mixture. In this respect, the Examiner cites Ito et al. In Ito et al., the mouth (16c) of the discharge nozzle for the fluid is axially displaced backwards with respect to the mouth (17b) of the discharge nozzle for the air-powder-mixture (see Fig. 4a). However, this document is totally silent about the provision of nozzle-openings in the outer peripheral surface of the air-powder-mixture tube. In contrast thereto, the tube (34) has an axial opening. Applying only the axial displacement of Ito et al., but not the other features, to the device known from Sharp et al. would be an impermissible ex-post-facto analysis. Applying the teaching of Ito et al. would result in that the person skilled in the art would not only displace the nozzle axially backwards, but would also provide a concentric arrangement of mixture injection outlet and water injection outlet, as shown in Fig. 4a thereof, which is contrary to the combination recited in claims 1 and 29.

The Examiner cites Maita et al. for nozzle openings in the outer peripheral surface. However, this document solely discloses a device for irrigating a cleansing solution, and the possibility of discharging two different media is never considered. It is therefore submitted that the person skilled in the art would not take this document into consideration at all.

In view of the foregoing amendments and remarks, allowance of claims 1 and 29 and their dependent claims is requested.

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SUBMITTED ELECTRONICALLY  
THROUGH THE PATENT AND  
TRADEMARK OFFICE EFS FILING  
SYSTEM ON February 19, 2010.

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Respectfully submitted,



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